

REMARKS

In order to expedite allowance of this application, claim 12 has been amended to specify that the barium titanate is being used as a semiconductor. This amendment is for emphasis only and has not changed the scope of the original claims which already recited that the ceramic was semiconductive. Claim 1 has been amended to specify that the ceramic comprises barium titanate.

Claims 1-11 were apparently rejected under 35 U.S.C. 112 on the grounds that the term "about" was not defined by the claim or the specification. This rejection is respectfully traversed. The term "about" means approximately or nearly and is not indefinite. See, e.g., *Zoltek Corp. v. United States*, 57 U.S.P.Q.2d 1257 (Ct Clm 2000); *Ex party Eastwood*, 163 U.S.P.Q. 316 (Bd. App. 1969).

"[T]he term 'about' ... is a descriptive term commonly used in patent claims to 'avoid' a strict numerical boundary to the specified parameter." *Verve LLC v. Crane Cams, Inc.*, 65 U.S.P.Q.2d 1051, 1054 (Fed. Cir. 2002) (quoting *Pall Corp. v. Micron Separations, Inc.*, 66 F.3d 1211 (Fed. Cir. 1995)). It is respectfully submitted that the assertion in the Office Action that the specification does not provide a standard for ascertaining the variation established by the word "about" represents an attempt to establish a precise mathematical boundary, contrary to the *Verve* case. It is also respectfully submitted that in order to establish that the term "about" is indefinite, the burden is on the Examiner to show one skilled in the art would not have an understanding of the term in the context of the invention and that has not been done here. Withdrawal of the rejection is respectfully solicited.

Claims 12 and 13 were rejected under 35 U.S.C. § 102 as anticipated by Katsumata. This rejection is respectfully traversed.

While this application and the reference both refer to barium titanate, it is respectfully pointed out that the instant claims require a semiconducting ceramic. The barium titanate in the reference, however, is used as a dielectric and dielectric barium titanate is different from semiconducting barium titanate. In the Katsumata, zinc oxide is used a semiconductor.

In addition, Katsumata does not teach or suggest that the glass coating impregnates pores. To overcome this latter deficiency, the Office Action hypothesizes that the pores of "Ueno" (sic; Katsumata) must be inherently filled with glass since prior art coatings filled pores, citing Bockstie Jr., but that does not constitute a teaching that the Katsumata ceramic is porous. The Office Action further notes that the application states that pressure and heat causes impregnation and asserts that since the atmosphere has "pressure", some impregnation must occur when the glass of Katsumata is printed on the capacitor and heated. However, the reference to pressure in the application obviously means something other than atmospheric pressure because otherwise no reference to pressure would have been necessary in that some degree of pressure would always be present. Still further, there is nothing in Katsumata which either teaches or suggest that the ceramic is "free of sintering additives" and this additionally shows that the Katsumata reference does not anticipate the invention under § 102 (or render it obvious under § 103). Withdrawal of the rejection is respectfully solicited.

Claims 1-17 were rejected under 35 U.S.C. § 102 over Ogose or alternatively under 35 U.S.C. § 103 over Ogose in view of Quirk. This rejection is respectfully traverse.

The Ogose reference relates to a grain boundary insulated multilayer ceramic capacitor. In a capacitor, the electrodes are separated by a dielectric and thus to the extent that this reference teaches barium titanate, it refers to a dielectric barium titanate rather than a semiconducting barium titanate. In addition, the Office Action refers to

paragraph 7 of the machine generated English translation which states that in a conventional strontium titanate system, the degree of sintering was low and many pores existed in the sintered article. The fact that pores may exist in the Ogoose strontium titanate ceramic does not, however, necessarily indicate that the relative density (density relative to the density of 1 cc of water at 4° C.) is about 90% or less as stated in the instant claims or even if it was, it would be 90% or less in a semiconducting barium titanate. Clearly, a ceramic can have porosity without the relative density being less than about 90%.

In the event that porosity was not inherent, the Office Action avers that Quirk at col. 3 overcomes the deficiency. This passage indicates that if the density was more than 93% of theoretical density, the pores would be too small to be impregnated. That statement appears to relate to absolute density rather than relative density and, in addition, relates to flame-sprayed ferrites, not semiconducting barium titanates. Clearly, Quirk does not cure the basic deficiencies in the primary reference.

It is respectfully submitted that in light of the foregoing, all rejections should be withdrawn and the application allowed.

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Respectfully submitted,

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